



**TEACHER PAGE**  
**Lesson: Sketching Cylinders**  
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**New Arizona Math Strand 4 Geometry and Measurement Grades 9-12**  
**Articulated 4MH1-05** Draw 2- and 3-dimensional figures with appropriate labels.  
**Old Arizona Math Standard 4 Geometry Proficiency 1 Grades 9-12**  
**4MP1-PO1** Sketch prisms, pyramids, cones, cylinders and spheres.

**Learning objectives:** the student will be able to:

- distinguish cylinders from other 3-dimensional shapes
- identify attributes of a cylinder
- draw 3-dimensional figures (cylinders) to demonstrate understanding.

**Overview:**

The student is guided through the process of sketching a cylinder using a drag and place technique.

**Classroom Management:**

This can be used in large group lessons, small group, or individual assignments. Each student will move through the lesson at differing speeds.

**Engaging Students:**

Provide a variety of different type of cylinders for students to see, touch and hold. These models may be purchased geometric models and/or they may be real-life examples (e.g., cans of food, tennis ball containers, small telescopes, Life Savers™, etc.) Ask students to try to make drums talk.

**Follow-up:**

Take advantage of the opportunity in TALK ABOUT IT of exploring the Hubble Telescope project and instruments (based on cylinders). Debate the issue of cost versus space exploration. SO WHAT explores the world of music and cylinders. Cylinders go to Mt. Everest in DIG DEEPER—or find the system the Master Cylinder in your car belongs to.

**Teacher Note:**

This lesson might be used in grade 8 to support Articulated Performance Objective 4M81-03: Recognize the three-dimensional figure represented by a net.

**Assessment:**

Multiple-choice questions must be correctly responded to in order to finish the lesson.

